

2025

M.Sc. 3rd Semester Examination

ZOOLOGY

Paper : ZOO - 302

(Ecotoxicology)

Full Marks : 25

Time : One Hour

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Answer any *two* questions : $2 \times 2 = 4$

1. Mention the criteria of a good chelating agent. Give two examples. 1+1
2. What do you mean by microplastics? Name four important sources of microplastics. 1+1
3. Differentiate between 'dose' and 'dosage'.
4. What is 'Minamata disease'? State the sources of methylmercury in the environment. 1+1

Answer any *two* questions : $4 \times 2 = 8$

5. Write down the sources, toxicokinetics and impact of Arsenic in the aquatic environment.

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6. What is acid rain? How is it formed? State its effects on ecosystem. 1+1+2
7. What is MATC? Differentiate between mutagen and carcinogen. 1+3
8. What is biomonitoring? Discuss how bioindicators help in assessing ecosystem health. 1+3

Answer any *one* question : 8×1=8

9. Give an account of biomagnification of xenobionts with special reference to DDT. Explain immunotoxicity with a suitable example. 4+4
10. Why 'phase-I' and 'phase-II' reactions of biotransformation are important in toxicology? Give a brief account of Cytochrome-p-450 mono-oxygenase system and its importance in ecotoxicology. 2+6

Internal Assessment : 5 marks
